

## **REMARKS**

Receipt of the Office Action of September 27, 2007 is gratefully acknowledged.

Claims 14 – 26 are pending. These have been examined with the following result: claims 14 – 25 are rejected under 35 USC 102(e) by Wikswo et al; and claim 26 is rejected under 35 USC 103(a) over Wikswo et al.

Wikswo et al and all the references of record have been studied, with Wikswo et al being considered in view of the examiner's comments.

As a result, the noted rejections are respectfully traversed.

Regarding Wikswo et al., it does not disclose a sensor arrangement in which a reference cell is connected with at least two sample chambers via an electrolyte bridge, wherein the electrolyte bridge includes an electrolyte canal which communicates with the sample chambers via diaphragms. Instead, Wikswo et al. discloses with respect to Figs. 5, 9, 11 and 12 an array of chambers (so-called "micro- bottles") containing cells and additional fluidic media, cf. e.g. paragraphs [0267], [0275] and [0278]. According to paragraph [0280] sensors are provided in the chambers for monitoring the container content of these microbottles, e.g. FET or ISFET-sensors.

Without the teaching of the noted sensor arrangement, Wikswo et al cannot anticipate claims 14 – 26, which recite this feature.

In paragraphs [02511- (0253], Wikswo et al. describes with respect to Fig. 11 an electrode arrangement comprising a first and a second electrode and a reference electrode. The reference electrode is connected to the first electrode via a potentiostat (reference sign 1103). The examiner alleges that this potentiostat is an electrolyte bridge (cf. 3. of the Office Action). However, an electrolyte bridge according to the present invention comprises an electrolyte canal, which

communicates with the sample chambers via diaphragms, which is something completely different.

In paragraph [0228] Wilcswo et al. describes with respect to Fig. 12 a plurality of wells, which are in fluid communication with a microfluidic channel, wherein electrochemical sensors are provided in the wells (reference number 1206). The potential of the electrochemical sensors is measured with respect to a reference electrode (1206). Wilcswo et al. does not disclose any diaphragms to be arranged within the microfluidic channel between the wells and the reference electrode. For this reason, amended claim 14 is novel over Wilcswo et al.

Furthermore, Wilcswo et al. neither teaches nor suggests providing an electrolyte bridge including an electrolyte canal which communicates with the sample chambers via diaphragms. Neither does Sunshine et al., by the examiner.

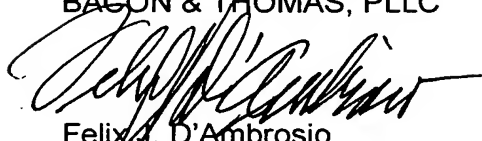
Without even a suggestion of an electrolyte canal, a rejection under 35 USC 103(a) cannot be sustained.

When the individual chambers are separated by diaphragms, charge transfer between the chambers is possible. However, at the same time intermixing of the liquid media in the sample chambers is avoided. This is of particular importance for the reference medium. If the reference medium can mix freely with the liquids in the sample chambers, the reference medium will be "poisoned" after a very short time, because the chemical composition of the reference medium will no longer be well defined. None of the documents cited by the examiner addresses this technical problem. For this reason, amended claim 14 is neither anticipated by or rendered obvious in view of either Wilcswo et al. or any of the other documents cited.

In view of the foregoing, reconsideration and re-examination are respectfully requested and claims 14-26 found allowable.

Date: January 28, 2008

Respectfully submitted,  
BACON & THOMAS, PLLC

A handwritten signature in black ink, appearing to read 'Felix J. D'Ambrosio', written over the printed name.

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